

*Chas. Hude*

Patents · Trade Marks · Designs

The European Patent Office  
PCT Department  
Erhardtstrasse 27  
D-80331 Munich  
Germany

PATENT

Tage Norgaard \*  
Ulrik Norgaard \*  
Ole Thiery-Carstensen \*  
Peter Kim Jensen \*  
Ulla C Klinge \*  
Jorgen Sliger \*  
Henrik Zeuthen-Aagaard \*  
Erik Lichtenberg \*  
Bent Christensen \*  
Henrik Dylmer \*  
Peter Englev \*  
Ebbe Johansen  
Ulrik von Freiesleben  
Rasmus Post  
Morten Rosted  
Jens Holger Stelling \*  
Mikkel Bender  
Stavon R. Kitchen  
Susanne Nord, secretarial  
Kirsten M. Jensen, annuities

TRADE MARKS  
AND DESIGNS

Kaj L. Henriksen \*  
Henrik Jespersen \*  
Claus Hyllinge \*  
Birgitte Waagpetersen \*  
Christian Kragelund \*  
Peter Larsen \*  
Kristiane B. Vandborg  
Charlotte Munck \*  
Sanna D. Hartvigsen *renewals*  
Sonja Nielsen *assignments*

SEARCHES

Louise Dalsgaard

ACCOUNTING/DP  
Steffen Hussing

\* Member of The Association  
of Danish Patent Agents  
\* European Patent Attorney  
\* European Trade Mark  
Attorney

03 SEP 2004

25 September 2003

BY COURIER

Dear Sirs

International patent application No PCT/DK 03/00133  
Applicant: ECCO SKO A/S et al.  
International classification: IPC B29D 31/50  
My ref: 76843 Jen/cor

The European Patent Office is hereby requested to carry out a detailed preliminary examination according to the enclosed DEMAND.

The official fee for the examination should be deducted from my account as per the enclosed fee calculation sheet.

I further enclose substitute pages 2 and 16 in which a linguistic defect has been remedied, as also shown in the attached draft.

Yours faithfully

Peter Kim Jensen  
Representative of the applicant

Encs

Chas Hude A/S

H C Andersens Boulevard 33  
DK-1780 Copenhagen V  
Denmark

Telephone

(+45) 33 15 45 14

Telefax

(+45) 33 15 45 35 (Pat.)  
(+45) 33 15 51 08 (TM)

E-mail:

chashude@chashude.dk  
Internet:  
www.chashude.com

Postal cheque: 500-0599

Nordea Bank A/S: 2191-5010120700  
Bank: S W I F T address NDEADKKK  
Tax I D / VAT No: 12-93-81-79

The demand must be filed directly with the competent International Preliminary Examining Authority or, if two or more Authorities are competent, with the one chosen by the applicant. The full name or two-letter code of that Authority may be indicated by the applicant on the line below.  
IPEA/ EPO

# PCT

## CHAPTER II

### DEMAND

under Article 31 of the Patent Cooperation Treaty:  
The undersigned requests that the international application specified below be the subject of international preliminary examination according to the Patent Cooperation Treaty and hereby elects all eligible States (except where otherwise indicated).

For International Preliminary Examining Authority use only		
Identification of IPEA		Date of receipt of DEMAND
<b>Box No. I IDENTIFICATION OF THE INTERNATIONAL APPLICATION</b>		Applicant's or agent's file reference
International application No DK03/00133	International filing date (day/month/year) 04 March 2003 (04.03.03)	(Earliest) Priority date (day/month/year) 04 March 2002 (04.03.02)
Title of invention Method of moulding soles on shoe uppers, a shoe welt and a mould for carrying out the method.		
<b>Box No. II APPLICANT(S)</b>		
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)  ECCO Sko A/S Industrivej 5 DK-6261 Bredebro Denmark		Telephone No +45 74 91 16 25
		Facsimile No +45 74 71 03 06
		Teleprinter No
		Applicant's registration No with the Office
State (that is, country) of nationality: DK		State (that is, country) of residence: DK
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)  SOMMERLUND, Jens Erik Sct. Hansvej 14 DK-6261 Bredebro Denmark		
State (that is, country) of nationality: DK		State (that is, country) of residence: DK
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)  HANSEN, Hans Christian Ellum Bygade 23 DK-6240 Løgumkloster Denmark		
State (that is, country) of nationality: DK		State (that is, country) of residence: DK
<input type="checkbox"/> Further applicants are indicated on a continuation sheet.		

**Box No. III AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE**

The following person is ☒ agent ☐ common representative  
and ☒ has been appointed earlier and represents the applicant(s) also for international preliminary examination  
☐ is hereby appointed and any earlier appointment of (an) agent(s)/common representative is hereby revoked  
☐ is hereby appointed, specifically for the procedure before the International Preliminary Examining Authority, in addition to the agent(s)/common representative appointed earlier.

Name and address: (Family name followed by given name: for a legal entity, full official designation)  
The address must include postal code and name of country)

CHAS. HUDE A/S  
H.C. Andersens Boulevard 33  
DK-1780 Copenhagen V  
Denmark

Telephone No

+45 33 15 45 14

Facsimile No

+45 33 15 45 35

Teleprinter No

Agent's registration No with the Office

☐ Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

**Box No. IV BASIS FOR INTERNATIONAL PRELIMINARY EXAMINATION**
**Statement concerning amendments:\***

1 The applicant wishes the international preliminary examination to start on the basis of:

☐ the international application as originally filed

the description ☐ as originally filed

☒ as amended under Article 34

the claims ☐ as originally filed

☐ as amended under Article 19 (together with any accompanying statement)

☒ as amended under Article 34

the drawings ☒ as originally filed

☐ as amended under Article 34

2 ☐ The applicant wishes any amendment to the claims under Article 19 to be considered as reversed

3 ☐ The applicant wishes the start of the international preliminary examination to be postponed until the expiration of 20 months from the priority date unless the International Preliminary Examining Authority receives a copy of any amendments made under Article 19 or a notice from the applicant that he does not wish to make such amendments (Rule 69 1(d)). (This check-box may be marked only where the time limit under Article 19 has not yet expired)

\* Where no check-box is marked, international preliminary examination will start on the basis of the international application as originally filed or, where a copy of amendments to the claims under Article 19 and/or amendments of the international application under Article 34 are received by the International Preliminary Examining Authority before it has begun to draw up a written opinion or the international preliminary examination report, as so amended.

**Language for the purposes of international preliminary examination: English**

☒ which is the language in which the international application was filed

☐ which is the language of a translation furnished for the purposes of international search

☐ which is the language of publication of the international application.

☐ which is the language of the translation (to be) furnished for the purposes of international preliminary examination

**Box No. V ELECTION OF STATES**

The applicant hereby elects all eligible States (that is, all States which have been designated and which are bound by Chapter II of the PCT)

excluding the following States which the applicant wishes not to elect:

**Box No. VI CHECK LIST**

The demand is accompanied by the following elements, in the language referred to in Box No. IV, for the purposes of international preliminary examination:

- |   |   |   |   |        |
|---|---|---|---|--------|
| 1 | translation of international application                              | : |   | sheets |
| 2 | amendments under Article 34   | : | 2 | sheets |
| 3 | copy (or, where required, translation) of amendments under Article 19 | : |   | sheets |
| 4 | copy (or, where required, translation) of statement under Article 19  | : |   | sheets |
| 5 | letter  | : | 1 | sheets |
| 6 | other ( <i>specify</i> )  | : |   | sheets |

For International Preliminary  
Examining Authority use only

received	not received
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<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

The demand is also accompanied by the item(s) marked below:

- |   |   |
|---|---|
| 1 <input checked="" type="checkbox"/> fee calculation sheet                             | 5. <input type="checkbox"/> statement explaining lack of signature                        |
| 2 <input type="checkbox"/> original separate power of attorney                          | 6. <input type="checkbox"/> sequence listings in computer readable form                   |
| 3. <input type="checkbox"/> original general power of attorney                          | 7. <input type="checkbox"/> tables in computer readable form related to sequence listings |
| 4 <input type="checkbox"/> copy of general power of attorney; reference number, if any: | 8 <input type="checkbox"/> other ( <i>specify</i> ):                                      |

**Box No. VII SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE**

*Next to each signature. Indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the demand)*

\_\_\_\_\_  
Peter Kim Jensen  
CHAS. HUDE A/S

For International Preliminary Examining Authority use only

1 Date of actual receipt of DEMAND:

2 Adjusted date of receipt of demand due to CORRECTIONS under Rule 60.1(b):

3. ☐ The date of receipt of the demand is AFTER the expiration of 19 months from the priority date and item 4 or 5, below, does not apply ☐ The applicant has been informed accordingly.

4 ☐ The date of receipt of the demand is WITHIN the period of 19 months from the priority date as extended by virtue of Rule 80.5

5. ☐ Although the date of receipt of the demand is after the expiration of 19 months from the priority date, the delay in arrival is EXCUSED pursuant to Rule 82

For International Bureau use only

Demand received from IPEA on:

GB 840.029 discloses a method of the above type of simultaneous moulding of a welt and a sole onto a shoe upper. In this method a two-part welt is used, each welt half substantially corresponding to half of the welt on the finished shoe. In the open mould position, one half of the welt is inserted into a groove in the inner surface of each upper mould member. Adjacent the groove, each of the upper mould members is provided with a protection to support the welt during the moulding process. The mould halves are then closed around the shoe upper arranged on a last, whereby the welts are made to abut the lower face of the shoe upper. Moulding material is subsequently poured into the cavity formed by the shoe upper and the upper mould member, a piston then being inserted into the cavity and the sole is formed and moulded onto the shoe upper. The use of a two-part welt involves a risk of the sole material flowing in between the welts and the shoe upper at the ends of the welt halves at the heel and toe sections of the shoe. It is furthermore time-consuming to arrange one welt half in each of the halves of the upper mould member.

15

#### Description of the Invention

The object of the invention is to provide a method of the above type allowing for a comparatively simple and reliable fitting of a welt without causing the sole material to flow in between the shoe welt and the shoe upper such that it becomes visible on the finished shoe.

20

The method according to the invention is characterised in that:

25 A - an annular welt is provided having an inner outline substantially corresponding to the outer outline of the lower side section of the shoe upper which corresponds to the position of the welt on the finished shoe,

B - the welt is placed in the mould in the open position of the mould,

30

Claims

1. A method of moulding soles of a plastic material, eg polyurethane, and shoe  
welts on shoe uppers by means of a mould (3) so as to provide the finished shoe with  
5 a welted appearance, said mould (3) including a last (2), upon which a shoe upper is  
arranged, an upper mould part (5) divided along a longitudinal middle plane and thus  
including two halves (5a, 5b) being laterally movable in relation to a lower mould  
part (4) between an open and a closed mould position, and a lower mould part (4)  
being vertically movable in relation to the upper mould part (5) between an open  
10 and a closed mould position, **characterised in that**

A - an annular welt (6) is provided having an inner outline substantially corre-  
sponding to the outer outline of the lower side section of the shoe upper which corre-  
sponds to the position of the welt on the finished shoe,

15

B - the welt (6) is placed in the mould in the open position of the mould,

C - the two halves (5a, 5b) of the upper mould part are brought together, whereby  
an upper projection (15) on each of the halves extends over the welt (6),

20

D - the lower mould part (4) is moved into its closed position, a circumferential  
support face (7, 7') on the upper face of the lower mould part (4) co-acting with a  
pressure surface (17) on the lower face of the projection (15) on each of the upper  
mould part halves (5a, 5b) in such a manner that the portion of the welt (6) facing  
25 the shoe upper is tilted inwards and downwards to bring the inner end face of the  
welt (6) into sealing engagement with the lower side section of the shoe upper (1)  
and

E - the shoe sole is moulded in a manner known *per se* by supplying a plastic mate-  
30 rial to the cavity of the mould.

GB 840.029 discloses a method of the above type of simultaneous moulding of a welt and a sole onto a shoe upper. In this method a two-part welt is used, each welt half substantially corresponding to half of the welt on the finished shoe. In the open mould position, one half of the welt is inserted into a groove in the inner surface of each upper mould member. Adjacent the groove, each of the upper mould members is provided with a protection to support the welt during the moulding process. The mould halves are then closed around the shoe upper arranged on a last, whereby the welts are made to abut the lower face of the shoe upper. Moulding material is subsequently poured into the cavity formed by the shoe upper and the upper mould member, a piston then being inserted into the cavity and the sole is formed and moulded onto the shoe upper. The use of a two-part welt involves a risk of the sole material flowing in between the welts and the shoe upper at the ends of the welt halves at the heel and toe sections of the shoe. It is furthermore time-consuming to arrange one welt half in each of the halves of the upper mould member.

15

#### Description of the Invention

The object of the invention is to provide a method of the above type allowing for a comparatively simple and reliable fitting of a welt without causing the sole material to flow in between the shoe welt and the shoe upper such that it becomes visible on the finished shoe.

20

The method according to the invention is characterised in that:

25 A - an annular welt having an inner outline substantially corresponding to the outer outline of the lower side section of the shoe upper which corresponds to the position of the welt on the finished shoe,

B - the welt is placed in the mould in the open position of the mould,

30

### Claims

1. A method of moulding soles of a plastic material, eg polyurethane, and shoe welts on shoe uppers by means of a mould (3) so as to provide the finished shoe with a welted appearance, said mould (3) including a last (2), upon which a shoe upper is arranged, an upper mould part (5) divided along a longitudinal middle plane and thus including two halves (5a, 5b) being laterally movable in relation to a lower mould part (4) between an open and a closed mould position, and a lower mould part (4) being vertically movable in relation to the upper mould part (5) between an open and a closed mould position, **characterised in that**

A - an annular welt (6) <sup>is provided</sup> having an inner outline substantially corresponding to the outer outline of the lower side section of the shoe upper which corresponds to the position of the welt on the finished shoe,

15

B - the welt (6) is placed in the mould in the open position of the mould,

C - the two halves (5a, 5b) of the upper mould part are brought together, whereby an upper projection (15) on each of the halves extends over the welt (6),

20

D - the lower mould part (4) is moved into its closed position, a circumferential support face (7, 7') on the upper face of the lower mould part (4) co-acting with a pressure surface (17) on the lower face of the projection (15) on each of the upper mould part halves (5a, 5b) in such a manner that the portion of the welt (6) facing the shoe upper is tilted inwards and downwards to bring the inner end face of the welt (6) into sealing engagement with the lower side section of the shoe upper (1) and

E - the shoe sole is moulded in a manner known *per se* by supplying a plastic material to the cavity of the mould.

30